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EXAMINER

CHEN, TIANJIE

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,114

Applicant(s)

THOMPSON ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-26 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Non-Final Rejection

1. Following Panel decision mailed on 10/03/2006, the case is reopen for prosecution.
2. Proposed amendment faxed on 09/27/2006 is not entered.

Claim Rejections - 35 USC § 103

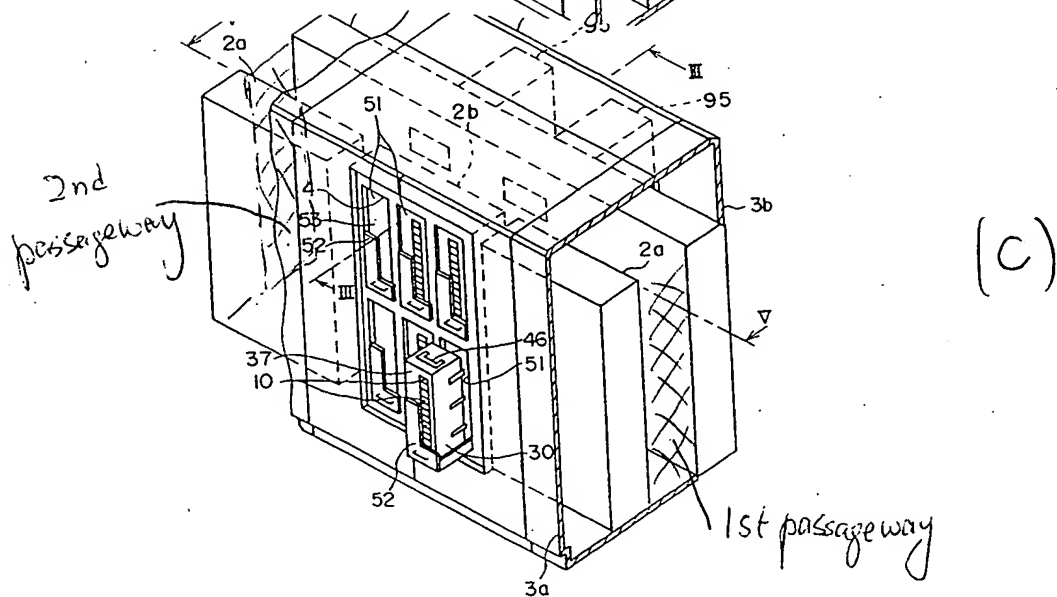
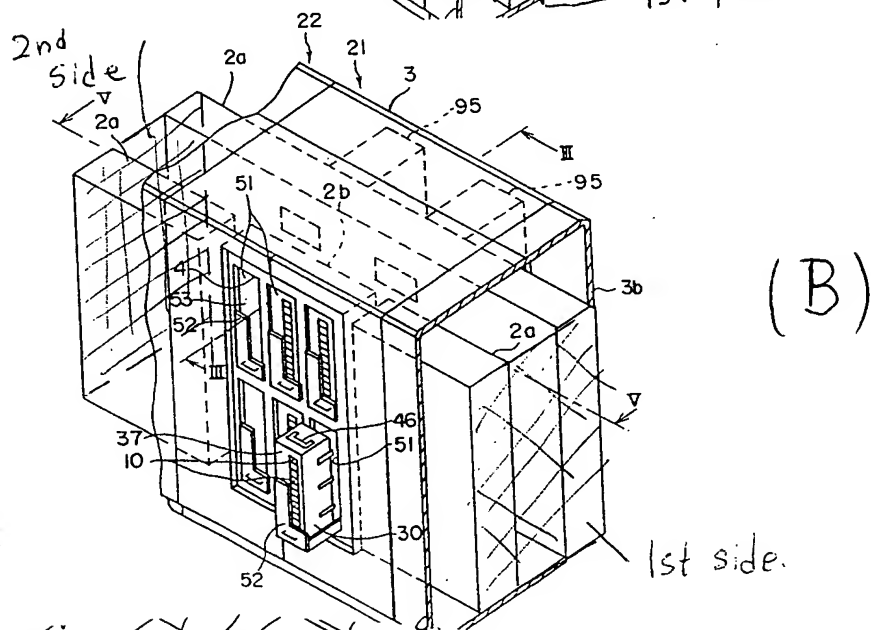
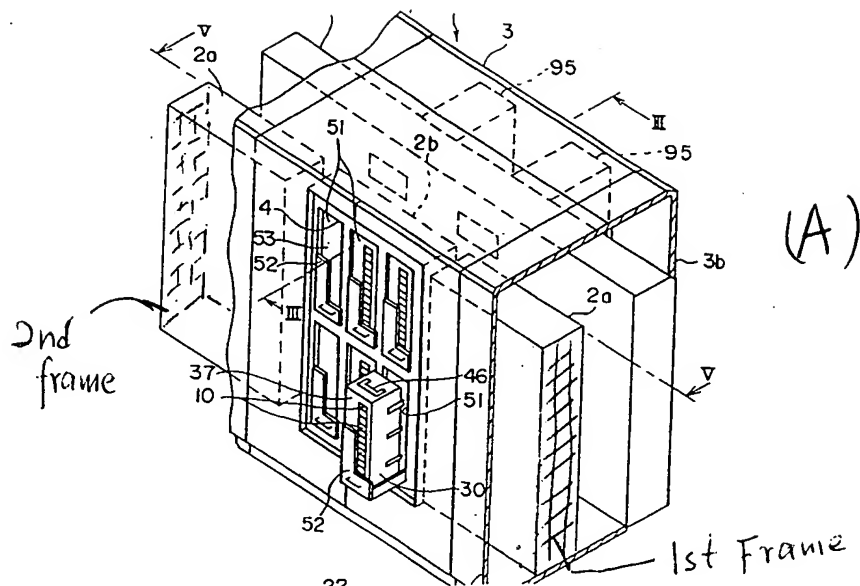
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hidano et al (US 5,442,500) in view of Dimitri (US 5,818,723).

Claim 1, Hidano et al shows a magazine-based data cartridge library in Figs. 1 and 2 including: a first portion 2a at right side in Fig. 2 of a magazine-based data cartridge library including: a first frame 2a (rack, see column 4, line 35) at right left side (See drawing A in next page) that defines a first side (See attached drawing B in next page); and a first passageway (See attached drawing C in next page) extending through a portion of the first side; a second portion 2a of a magazine-based data cartridge library including: a second frame 2a (rack, see column 4, line 35) at left side (See attached drawing A in next page) that defines a second side (See attached drawing B in next page); and a second passageway extending through a portion of the second side (See attached drawing C in next page), a cartridge transport device 80 (Fig. 3; column 4, lines 52-53) for moving a data cartridge within the first frame, moving a

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data cartridge through the first and second passageways, and moving a data cartridge within the second frame.

Hidano et al does not show that the transport device transports magazine.

Dimitri shows a magazine-based data cartridge library in Fig. 1, wherein a magazine transport device 110 capable of moving a data cartridge magazine among the frames. Dimitri also teaches that this magazine transport device would move the magazines faster thus speed up the processing process (Column 2, lines 28-41). One of ordinary skill in the art would have been motivated to add the magazine transport function onto the cartridge transport device in Hidano et al's device, thus speed up the processing process. In such constructed device, the data cartridge magazine transport device moves data cartridge magazine within the first frame, and moves data cartridge magazine through the first and second passageways, and also moves data cartridge magazine within the second frame.

Claim 2, in thus constructed device, the magazine transport device includes: a magazine picker in Dimitri's Fig. 3; and an elevator in Dimitri's Fig. 5 for moving the magazine picker; wherein the elevator includes a horizontal guide in Hidano et al's Fig. 4.

Claim 3, in thus constructed device, the horizontal guide includes a continuous horizontal guide that extends between the first and second frames in 2b section.

Claim 4, in above constructed device, the horizontal guide includes: a first horizontal section that extends from a first horizontal section (right 2a) first end (left end) to a first horizontal section second end (right end); and a second horizontal section (left 2a) that extends from a second horizontal section first end (right end) to a

second horizontal section second end (left end); wherein the first horizontal section second end is substantially aligned with the second horizontal section first end.

Claim 5, in thus constructed device, the horizontal guide includes: a first horizontal guide section located within the first frame, a second horizontal guide section located within the second frame, and a third horizontal guide section in 2b area extending located at the between the first horizontal guide section and the second horizontal guide section.

Claim 6, in above constructed device, the horizontal guide is substantially linear.

Claim 8, Hidano et al shows a cartridge transport device 80 for moving a data cartridge between a magazine and a drive; wherein the cartridge transport includes an elevator 82.

Claim 20, Hidano et al shows that the first portion is capable of functioning as a magazine-based data cartridge library without the second portion.

Claim 21, the above constructed Hidano et al and Dimitri's device is includes a method for making a magazine-based data cartridge library including: first providing a magazine-based data cartridge library including: a cabinet; a shelf, located within the cabinet, for supporting a data cartridge magazine; a drive located within the cabinet; a cartridge transport, located within the cabinet, for moving a data cartridge between one of data cartridge magazines and the drive; a magazine transport device, located within the cabinet, for moving one of data cartridge magazines within the cabinet; wherein the magazine transport device including: a magazine picker; and a guide structure for use in moving the magazine picker within the cabinet; and Hidano et al further shows in Fig. 1, that the cabinet including a side surface that is readily

alterable to form a first passageway extending through a portion of the first side surface; and second providing a magazine-based data cartridge library add-on including: an add-on cabinet; wherein the add-on cabinet including a second side surface that is either readily alterable to form a second passageway extending through a portion of the second side surface.

Claim 22, Hidano et al further shows in Fig. 1 that the library inherently provides a replacement guide structure for the guide structure of the magazine-based data cartridge library; wherein when the first passageway of the magazine-based data cartridge library and the second passageway of the magazine-based data cartridge library add-on are aligned, the replacement guide being of a length such that the magazine picker can be moved within the cabinet and the add-on cabinet.

Claim 23, Hidano et al shows in Fig. 1 that the library inherently provides an add-on guide structure for the guide structure of the magazine-based data cartridge library; wherein when the first passageway of the magazine-based data cartridge library and the second passageway of the magazine-based data cartridge library add-on are aligned, the guide of the magazine-based data cartridge library and the add-on guide structure being of a length such that the magazine picker can be moved within the cabinet and the add-on cabinet.

Claim 24, in above constructed device, that the add-on guide structure includes a first add-on guide structure and a second add-on guide structure.

4. Claims 9-19, 25, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hidano et al in view of Dimitri as applied to claim 1 above, and further in view of Hug. et al (US 5,128,912).

Claim 9, in above constructed device, the transport device includes: a first magazine transport device for moving a data cartridge magazine within the first frame; but fails to show a second magazine transport device.

Hug et al shows a transport device in Fig. 1 includes: a first transport device 26 for moving a data cartridge within the first frame 12, and a second magazine transport device 28 for moving a data cartridge within the second frame 14 and within a first space that is within the first frame 12 (Fig. 2; column 5, line 65 to column 3, line 18).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to adapt Hug et al's configuration for the magazine transport device in above constructed device. The rationale is as follow: Hug et al teaches that as a single transport device is used, should that device break down, the entire apparatus becomes inoperative. Moreover, the overall speed is limited to the speed at which the transport mechanism can move between frames (Column 1, lines 27-432). The improved two transport devices system should be able to overcome these problems. One of ordinary skill in the art would have been motivated to apply Hug et al's structure for overcome the mentioned problems.

Claim 10, in above constructed device, the first magazine transport device further for moving a data cartridge magazine within a second space that is within the second frame.

Claim 11, in the above constructed device, the magazine transport device includes: a first magazine transport device moving a data cartridge magazine within the first frame and within space that is located between the first and second frames; and a second magazine transport device for moving a data cartridge magazine within

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the second frame and within the space that is located between the first and second frames.

Claim 12; Hidano et al and Dimitri's device includes a magazine transport device includes: a first magazine transport device for moving a data cartridge magazine within the first frame.

Hug et al shows a transport device in Fig. 1 includes: a first transport device 26 for moving a data cartridge within the first frame 12, and a second magazine transport device 28 for moving a data cartridge within the second frame 14 and within a first space that is within the first frame 12 (Fig. 2; column 5, line 65 to column 3, line 18).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to add Hug et al's transport devices 26 and 28 into Hidano et al and Dimitri's device and modified for transporting the magazine. The rationale is as follow: Hug et al teaches that as a single transport device is used, should that device break down, the entire apparatus becomes inoperative. Moreover, the overall speed is limited to the speed at which the transport mechanism can move between frames (Column 1, lines 27-432). The improved two transport devices system should be able to overcome these problems. One of ordinary skill in the art would have been motivated to apply Hug et al's structure for overcome the mentioned problems. In such constructed device, three transport devices will all be able to transport magazines.

Such constructed device includes: a second magazine transport device for moving a data cartridge magazine within the second frame; and a third magazine transport device for moving a data cartridge magazine through the first and second passageways.

Claim 13, in above constructed device, the first and second magazine transport devices each move in a plane.

Claim 14, in above constructed device, Hug et al shows that the third magazine transport device includes: a support 44, which have been modified for holding a data cartridge magazine; and means for rotating the support about an axis Y (Fig. 1).

Claim 15, Hug et al shows that the third magazine transport device includes: a support for holding a data cartridge magazine; and means for linearly along the direction 46 (Fig. 1) translating the support.

Claim 16, the added two transport devices from Hug et al are named as the first and second magazine transport devices each rotate about an axis Y (Fig. 1).

Claim 17, as described above, Hug et al shows that the second magazine transport device includes: a support for holding a data cartridge magazine; and means for rotating the support about an axis Y (Fig. 1).

Claim 18, as described above, Hug shows that the second magazine transport device includes: a support for holding a data cartridge magazine; and means for linearly translating the support.

Claim 19, in above constructed Hidano et al and Dimitri's device, the transport devices are able for moving a data cartridge between a magazine and a drive; wherein at least one of the first and second magazine transport devices includes an elevator; and wherein the cartridge transport device includes the elevator.

Claim 25, the above constructed device includes the step of second providing including providing a first add-on magazine transport device, which also located

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within the add-on cabinet, for moving a data cartridge magazine within the add-on cabinet.

Claim 26, the above constructed device includes a method including: third providing a second add-on data cartridge magazine device for transporting a data cartridge magazine between the magazine based data cartridge library and the magazine based data cartridge library add-on.

Allowable Subject Matter

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- With regard to claim 7, as the closest reference on record, the combination of Hidano et al (US 5,442,500) and Dimitri (US 5,818,723) shows a magazine-based data cartridge library including: a first portion of a magazine-based data cartridge library including: a first frame that defines a first side; and a first passageway extending through a portion of the first side; a second portion of a magazine-based data cartridge library including: a second frame at that defines a second side; and a second passageway extending through a portion of the second side, a cartridge transport device for moving a data cartridge within the first frame, moving a data cartridge through the first and second passageways, and moving a data cartridge within the second frame. the transport device transports magazine, and the elevator including a horizontal guide; but fails to show that the horizontal guide follows a curve.

- Applicant asserts in this configuration, the robot moves in a space that is located between two concentric arcs. It should be appreciated that the embodiments illustrated in Figs. 3A and 3B are each capable of being implemented such that the shelf or shelves and drive or drives are laid out along a circular/cylindrical arc that defines a complete or substantially complete circle or cylinder (Specification, p. 43).

Response to Arguments

6. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER